

REMARKS

Claims 1-38 are pending in the present application. Claims 1, 14, 18, and 27-30 have been amended, without acquiescence or prejudice to pursue the original claims in a related application. Claims 31-38 are new. No new matter has been added.

Claim Objections

According to the Office Action, the Examiner objected to claim 18 because of informalities. Claim 18 has been amended as requested. Applicants respectfully request withdrawal of the claim objections.

Claim Rejections Under 35 U.S.C. § 112

Claims 1-17, 27, and 28 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite, for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention.

1. Claims 1, 27, and 28 stand rejected because it is allegedly unclear how the results show “simultaneous” debugging of both portions of the design because it appears that only the HDL portion produces the recited “debug” results. Without acquiescence to the stated reason for rejection, Applicants have amended the claims. Applicants respectfully request withdrawal of the claim rejections.

Further, claims 1, 27, and 28 stand rejected because it is allegedly unclear how the limitations “debug” the “electrical design” since debugging is understood to be finding and correcting errors in a design, and the Office Action states that there does not appear to be any steps reciting finding or correcting errors. Applicants note that claims 1, 27 and 28 have the limitation “generating debug results.” Applicants respectfully request withdrawal of the claim rejections.

Claim Rejections Under 35 U.S.C. § 101

Claim 30 stands rejected under 35 U.S.C. § 101 because the claimed invention is allegedly directed to non-statutory subject matter.

1. According to the Office Action, claim 30 allegedly recites functional descriptive material, and therefore, is directed toward non-statutory subject matter. Applicants note that “an element in a claim for a combination may be expressed as a means or step for performing a specified function without the recital of structure, material, or acts in support thereof, and such claim shall be construed to cover the corresponding structure, material, or acts described in the specification and equivalents thereof” (35 USC § 112). Applicants respectfully submit that the structure, material, and acts for claim 30 are described throughout the specification. Thus, Applicants respectfully request that the rejections be withdrawn for independent claim 30.

Claim Rejections Under 35 U.S.C. § 102

Claims 1-7, 12, 13, 15-17, 27 and 28

Claims 1-7, 12, 13, 15-17, 27 and 28 stand rejected under 35 U.S.C. §102(b) as being unpatentable over U.S. Patent No. 6,182,258 issued to Hollander (“Hollander”).

1. Amended claim 1 recites the limitation “the external debugger debugging the general programming language portion...handling a simulator request with the external debugger for the simulator that is interrupted, the **external debugger calling a request processing function at the simulator.**” Claims 27 and 28 recite similar limitations. Applicants respectfully submit that Hollander discloses a co-verification extension module that provides the ability to make co-verification requests during verification test of an integrated circuit design, and does not disclose the **external debugger calling a request processing function at the simulator.**

According to the Office Action dated August 27, 2007, Hollander teaches “handling a simulator request with the external debugger for the simulator that is interrupted, the external debugger calling a request processing function at the simulator” at column 5 lines 44-48, column 9 lines 58-65, column 10 lines 43-50, column 11 lines 6-13, and Figure 6, element 90 “Continue” and “Return.” Applicants respectfully submit that the cited sections of Hollander do not disclose the **external debugger calling a request processing function at the simulator.**

In the cited sections, Hollander discloses a co-verification extension module for implementing verification tests of an integrated circuit design that provides the ability to send requests during the test between an external program that is to be run on the hardware apparatus

and a model of the hardware apparatus (Column 10, lines 20-50). Hollander is silent with respect to an external debugger calling a request processing function at the simulator. Further, Hollander discloses using a record/replay facility of a simulation in order to debug the external software and therefore, there is no need for an external debugger to call a request processing function at the simulator because a recorded simulation is used for debugging purposes in Hollander. Thus, Hollander does not disclose the **external debugger calling a request processing function at the simulator**.

For at least these reasons, Applicants submit that Hollander fails to anticipate every limitation of claim 1. Because claims 27 and 28 share each of the limitations of claim 1 discussed above, they are not anticipated by Hollander. Furthermore, because claims 1-7 and 12-17 depend from claim 1, they also are not anticipated by Hollander.

Claim Rejections Under 35 U.S.C. § 103

Claims 8-11

Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hollander in view of U.S. Patent No. 6,466,898 issued to Chan ("Chan").

Applicants respectfully submit, as discussed above, that Hollander in view of Chan fails to disclose, teach or suggest all the limitations of claim 1, from which claims 8-11 depend. Chan does not disclose the deficiencies present in Hollander. Chan is directed toward a multithreaded HDL logic simulator and Chan is silent with respect to a debugger. Thus, Chan does not disclose the **external debugger calling a request processing function at the simulator** and Applicants respectfully request that the rejection be withdrawn.

For at least these reasons, Applicants submit that Hollander in view of Chan fails to disclose, teach or suggest every limitation of claim 1. Because claims 8-11 depend from claim 1, they also are not disclosed, taught or suggested by Hollander in view of Chan.

Claim 14

Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hollander in view of Stallman et al. "Debugging with GDB: The GNU Source Level Debugger", January 2002, book summary.

Applicants respectfully submit, as discussed above, that Hollander in view of Stallman fails to disclose, teach or suggest all the limitations of claim 1, from which claim 14 depends. Stallman is a book summary for “Debugging with GDB: The GNU Source Level Debugger” and is directed toward the contents of the book covering debugging with GDB, and does not disclose the **external debugger calling a request processing function at the simulator**. Applicants respectfully request that the rejection be withdrawn.

For at least these reasons, Applicants submit that Hollander in view of Stallman fails to disclose, teach or suggest every limitation of claim 1. Because claim 14 depends from claim 1, claim 14 is also not disclosed, taught or suggested by Hollander in view of Stallman.

Claims 18-23, 25, 26, 29 and 30

Claims 18-23, 25, 26, 29 and 30 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hollander in view of U.S. Patent No. 6,466,898 issued to Chan (Chan).

Claim 18 recites the limitation “handling the one or more waiting requests for processing of the first language portion by having processing of the second language portion call a request processing function at the first language portion that has been interrupted.” Claims 29 and 30 recite similar limitations. Applicants agree with the Examiner that Hollander does not teach determining whether there are one or more waiting requests for processing of the first language portion and indicating a need for processing of the second portion to call a request processing function at the first language portion. Applicants respectfully submit that Chan does not disclose the deficiencies present in Hollander.

According to the Office Action, column 7 lines 1-7, lines 32-39, Figure 3 element 14 and Figure 8 element 42 of Chan teaches determining whether there are one or more waiting requests for processing of the first language portion. Applicants respectfully submit that Chan does not teach determining whether there are one or more waiting requests for processing of the first language portion and indicating a need for processing of the second portion to call a request processing function at the first language portion.

Chan is directed toward a simulator checking if there are certain pending events and the simulator processing the events (Chan, Column 7, lines 1-5). Chan does not indicate to a need for processing of the second portion to call a request processing function because all simulator

events are processed by the simulator after a determination is made at the simulator. Thus, Chan does not teach determining whether there are one or more waiting requests for processing of the first language portion and indicating a need for processing of the second portion to call a request processing function at the first language portion.

For at least these reasons, Applicants submit that Hollander in view of Chan fails to anticipate every limitation of claim 18. Because claims 29 and 30 share each of the limitations of claim 18 discussed above, they are not anticipated by Hollander in view of Chan. Furthermore, because claims 19-23, 25 and 26 depend from claim 18, they also are not anticipated by Hollander in view of Chan.


CONCLUSION

On the basis of the above remarks, reconsideration and allowance of the claims is believed to be warranted and such action is respectfully requested. If the Examiner has any questions or comments, the Examiner is respectfully requested to contact the undersigned at the number listed below.

The Commissioner is authorized to charge any fees due in connection with the filing of this document to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7037682001. The Commissioner is authorized to credit any overpayment or to charge any underpayment to Bingham McCutchen's Deposit Account No. 50-4047, referencing billing number 7037682001.

Respectfully submitted,
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